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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/077,095

02/14/2002

Nikhil Jain

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01/07/2005

Qualcomm Incorporated
Patents Department
5775 Morehouse Drive
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EXAMINER

HOANG, THAI D

ART UNIT

PAPER NUMBER

2667

DATE MAILED: 01/07/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/077,095

Applicant(s)

JAIN ET AL.

Examiner

Thai D Hoang

Art Unit

2667

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 03 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on Amendment filed 08/18/2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3-10,18,20-22,24,26 and 27 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3-10,18,20-22,24,26 and 27 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

Claims 1, 3 and 6-8 are rejected under 35 U.S.C. 102(a) as being unpatentable over Wiedeman et al, US patent no. 6,233,463 B1, hereafter referred to as Wiedeman.

Regarding claim 1, Wiedeman discloses a system configured for supporting wireless communication between a code division multiple access (CDMA) and both a GSM core infrastructure (elements 32, 36, figures 5-8B) and an IS-41 core infrastructure (elements 30, 34, figures 5-8B), comprising:

a plurality of base stations 5 (BSs) and base station controllers 54 (BSC); figs. 7-8). In the system disclosed by Wiedeman the gateway 10 is connected to ground data network (GDN) by links 20, 28 and PSTN/ISDN by link 3 (figures 5-8). Nevertheless, Wiedeman discloses that the system can operate with protocols and air interface standards, such as analog (e.g., AMPS), time division multiple access (TDMA), code division multiple access (CDMA), and combinations of these access types; col. 4, lines 18-24; col. 5, lines 64-67; col.12, lines 48-56. Therefore, the system disclosed by Wiedeman is clearly a CDMA RAN;

a first circuit communicating with the CDMA wireless signal, the first circuit communicating with the IS-41 core infrastructure (34, 44) using IS-41 protocol; and

a second circuit communicating with the CDMA wireless signal, the second circuit communicating with the GSM core infrastructure (36, 48) using GSM protocol (col. 12, line 45- col. 13, line 60).

Regarding claims 3 and 8, Wiedeman does not explicitly disclose that the message is a location message. However, Wiedeman teaches that the system can detect a roaming user (col. 5, lines 1-59). It indicates that the system receives location message from the roaming user.

Regarding claim 6, Wiedeman discloses that the system configured for supporting wireless communication between a code division multiple access (CDMA) and both a GSM core infrastructure and an IS-41 core infrastructure; therefore, it inherently comprises a state machine selectively configurable to communicate with the IS-41 core infrastructure using IS-41 protocol (34, 44) or with the GSM core infrastructure using GSM protocol (36, 48), based on at least one identifier received from at least one MS.

Regarding claim 7, the system disclosed by Wiedeman inherently selects the first or the second circuit base on at least one message (user ID and/or location, and/or protocol...) from a mobile station, because the system cannot service for the mobile station without receiving at least one message from the mobile station to detect roaming or protocol type of the mobile station (col. 5, lines 1-59.)

Claims 18, 20-21, 24 and 26-27 are rejected under 35 U.S.C. 102(a) as being unpatentable over Ahn et al, US patent No. 6,681,111, hereafter referred to as Ahn.

Regarding claims 18, 21 and 24, Ahn discloses a method and system called "Roaming service system for GSM service subscriber in CDMA service area, and method for registering locations and transmitting and receiving signals and short messages using the system." Ahn discloses a roaming service system in a CDMA service area for a GSM service subscriber comprises: a CDMA system comprising a CDMA home location register (HLR) storing information on subscribers' locations and services, a CDMA mobile switching center (MSC) connected to the CDMA HLR and accessing calls, and a CDMA terminal wirelessly connected to the CDMA and capable of having a subscriber identity module (SIM) card removably installed therein; a GSM system comprising a GSM HLR storing information on the subscribers' locations and services, a GSM MSC connected to the GSM HLR and accessing calls, an authentication center (AuC) connected to a GSM network and authenticating terminals, and a GSM terminal wirelessly connected to the GSM MSC; and an international gateway system (IRGS) connected between the CDMA system and the GSM system and converting signals to execute signal communications between the systems, and when a subscriber of a service provided by the GSM system moves to an area in which the subscriber can use the service provided by the CDMA system and installs the subscriber's SIM card in the CDMA terminal, transmissions of predetermined data necessary for a GSM authentication by the CDMA system being executed using a CDMA message so that tasks of initial location registration of the GSM service subscriber, a location registration when the location is modified, sending and receiving

calls with other subscribers, and a short message service (SMS) are enabled; see fig. 1, abstract, col. 1, line 60 - col. 2, line 20, col. 5, line 17 - col. 6, line 54.

Regarding claims 20 and 26-27, Ahn discloses that the system use IMSI to identify user; col. 4, lines 65-67; col. 5, lines 20-27.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 4-5, 9-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wiedeman in view of Bright et al, US Patent Application Publication No. 2002/0094811 A1, hereafter referred to as Wiedeman and Bright respectively.

Regarding claims 4 and 9, Wiedeman does not disclose that the location message includes an international mobile subscriber identifier (IMSI). However, Bright discloses a method and system for interworking and interoperability between GSM and another wireless system (figure 3). Bright discloses that the MS (356) performs a GPRS location update using its IMSI (col. 6, paragraph [0051]). It would have been obvious to one of ordinary skill in the art at the time the invention was made to adapt IMSI disclosed by Bright into the Wiedeman's system in order to improve service for customers because the serviced area for the customers is expanded.

Regarding claims 5 and 10, Wiedeman does not disclose that the system uses the IMSI to determine in which core infrastructure the MS has a subscription. However,

Bright discloses that the system uses the IMSI to determine in which core infrastructure the MS has a subscription (figure 5; paragraph [0053]). It would have been obvious to one of ordinary skill in the art at the time the invention was made to adapt IMSI disclosed by Bright into the Wiedeman's system in order to improve service for customers as mentioned in claim 4.

Claims 22 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ahn et al, US patent No. 6,681,111 in view of Wiedeman et al, US patent no. 6,233,463 B1, hereafter referred to as Ahn and Wiedeman respectively.

Regarding claim 22, Ahn disclose the system use GSM protocol when user has a subscription in the GSM core infrastructure. Ahn does not explicitly disclose the system uses IS-41 protocol in the CDMA infrastructure. However, Wiedeman discloses that the method comprises the step of: using GSM protocol when the MS has a subscription in the GSM core infrastructure, and otherwise using IS-41 protocol when the MS has a subscription in the CDMA core infrastructure (fig. 6A-8B; col. 12, line 45 – col. 14, line 26, col. 17, lines 12-53). It would have been obvious to one of ordinary skill in the art at the time the invention was made to apply Wiedeman's method into the system disclosed by Ahn in order to adapt with conventional CDMA system used in the Network.

Response to Arguments

Applicant's arguments filed 8/18/2004 with respect to claims 18 and 24 have been considered but are moot in view of the new ground(s) of rejection.

Applicant's arguments filed 8/18/2004 with respect to claims 1 and 6 have been fully considered but they are not persuasive.

Regarding claim 1, page 2 of the remarks, Applicants argues in the office action dated 05/18/2004, the Examiner does not specify the disclosure in the reference Wiedeman that meets the language of "a first circuit and "a second circuit" which are elements of the independent claim 1. Examiner respectfully disagrees. The first circuit and the second circuit are clearly mentioned on page 3 of the office action dated 05/18/2004.

Regarding claim 6, page 2 of the remarks, Applicants argues that the Examiner does not specify the disclosure in the reference Wiedeman that meets the language of "(a) state machine" as required by independent claim 6. Examiner respectfully disagrees. Since Wiedeman discloses that the system configured for supporting wireless communication between a code division multiple access (CDMA) and both a GSM core infrastructure and an IS-41 core infrastructure; therefore, it inherently comprises a state machine to detect and communicate with the IS-41 core infrastructure using IS-41 protocol (34, 44) or with the GSM core infrastructure using GSM protocol (36, 48).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thai D Hoang whose telephone number is (571) 272-3184. The examiner can normally be reached on Monday-Friday 10:00am-18:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chi Pham can be reached on (571) 272-3179. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Thai Hoang


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1/3/05